

PATENT ABSTRACTS OF JAPAN

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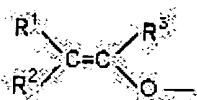
SAKURADA TOYOHISA

(54) CHEMICALLY SENSITIZED POSITIVE RESIST MATERIAL AND PATTERN FORMING METHOD

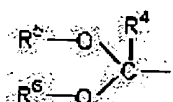
(57)Abstract:

PROBLEM TO BE SOLVED: To form a minute contact hole pattern for the production of a very large scale integrated circuit as well as to provide a highly adaptable process in which the reduction of contact hole size by heating is easily controlled by adding a compound having, in one molecule, two or more functional groups which can crosslink with a polymer compound used in a chemically sensitized positive resist material in a step for reducing contact hole size by heating a contact hole pattern when the contact hole pattern is formed using the resist material.

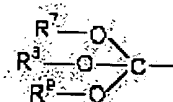
SOLUTION: The objective chemically sensitized positive resist material for forming a contact hole pattern by a thermal flow process contains a compound containing two or more functional groups of formulae (1)-a, (1)-b and (1)-c in one molecule. In the formulae, R¹-R⁴ are each H or linear, branched or cyclic alkyl; R⁵-R⁹ are each linear, branched or cyclic alkyl; and adjacent symbols R_n may combine to each other to form a ring.



(1)-a



(1)-b



(1)-c